IN THE CLAIMS

Claim 1 (Original): A semiconductor device comprising:

a first layer composed of a group III nitride semiconductor,

a second layer composed of a group III nitride semiconductor, and

a gate electrode,

wherein the first layer has a region formed between the gate electrode and the second layer;

wherein a channel is formed in at least one of: (1) the first layer, (2) the second layer, (3) the region between the first layer and the second layer; and

wherein the conductivity type of the second layer is inversed with respect to the conductivity type of carriers flowing in the channel.

Claim 2 (Original): The semiconductor device as described in claim 1, wherein the second layer is in contact with an electrode for leading out carriers with the conductivity type inversed with respect to that of the carriers flowing in the channel from the device.

Claim 3 (Canceled).

Claim 4 (Original): A semiconductor device comprising:

a first layer composed of a group III nitride semiconductor of a first conductivity type,

a second layer composed of a group III nitride semiconductor of a second conductivity type,

a third layer composed of a group III nitride semiconductor of the first conductivity type, and a gate electrode,

wherein the first layer has a region formed between the gate electrode and the second layer;

wherein the third layer has a region formed between the first layer and the second layer; and

wherein the band gap of the third layer is less than the band gap of the first layer.

Claim 5 (Original): A semiconductor device comprising:

a first layer composed of a group III nitride semiconductor of a first conductivity type,

a second layer composed of a group III nitride semiconductor of a second conductivity type,

a third layer composed of a group III nitride semiconductor, and

a gate electrode,

wherein the first layer has a region formed between the gate electrode and the second layer;

wherein the third layer has a region formed between the first layer and the second layer; and

wherein the band gap of the third layer is less than the band gap of the first layer and the second layer.

Claim 6 (Original): The semiconductor device as described in claim 5, wherein the third layer is composed of a substantially true group III nitride semiconductor.

Claim 7 (Canceled).

Claim 8 (Original): A field-effect transistor comprising:

a gate electrode,

a first layer composed of a group III nitride semiconductor of a first conductivity type, and

a second layer composed of a group III nitride semiconductor of a second conductivity type located on a side of the first layer opposite to the gate electrode.

Claim 9 (Original): The field-effect transistor as described in claim 8, wherein the first layer and second layer are in direct contact with each other, and the band gap of the first layer is larger than the band gap of the second layer.

Claim 10 (Original): The field-effect transistor as described in claim 8, wherein a third layer having a band gap smaller than the band gaps of the first layer and the second layer is located between the first layer and second layer.

Claim 11 (Original): The field-effect transistor as described in claim 10, wherein the third layer is composed of a true group III nitride semiconductor.

Claim 12 (Original): The field-effect transistor as described in claim 8, wherein a third layer composed of a group III nitride semiconductor of the first conductivity type and having a band gap smaller than the band gap of the first layer is located between the first layer and second layer.

Claim 13 (Original): The field-effect transistor as described in claim 8 that operates in a normally off condition, wherein a depleted layer expanding from the second layer to the first layer depletes the entire first layer when no electric voltage is applied to the gate electrode.

Claim 14 (Original): The field-effect transistor as described in claim 13, further comprising a gate insulating film disposed between the gate electrode and the first layer.

Claim 15 (New): The semiconductor device of claim 1,

wherein the first layer has a first conductivity type,

wherein the second layer has a second conductivity type,

wherein the first layer and the second layer are in contact with each other,

wherein the first layer and the second layer have band gaps, and

wherein the band gap of the first layer is larger than the band gap of the second layer.

Claim 16 (New): The semiconductor device of claim 1,

wherein the first layer has a first conductivity type,

wherein the second layer has a second conductivity type,

and wherein the thickness of the first layer is not more than the thickness of a depleted layer extending from a boundary between the first layer and the second layer to the first layer side when no electric voltage is applied to the gate electrode.